



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/874,936	06/05/2001	Todd Eli	A773.12-0049	3507

6980 7590 01/14/2005

TROUTMAN SANDERS LLP
BANK OF AMERICA PLAZA, SUITE 5200
600 PEACHTREE STREET, NE
ATLANTA, GA 30308-2216

EXAMINER

SHAAWAT, MUSSA

ART UNIT	PAPER NUMBER
----------	--------------

2128

DATE MAILED: 01/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/874,936

Applicant(s)

ELL ET AL.

Examiner

Mussa A Shaawat

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10 December 2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to application # 09/874,936, filed on June 05, 2001.

Claims 1-31 are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim1-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joseph I. Hauwiller, US Patent No. (6,236,907) referred to hereinafter as Hauwiller in view of Keith Wendte, US Patent No. (5,995,894) referred to hereinafter as Wendte.

As per claim 1, Hauwiller teaches a method of creating application maps (see col.1 lines 12-21), the method comprising: inputting agricultural product information, where each product contains a percentage of nutrient inputs contained in the product (see col. 3 lines 41-45, lines 61-65, col.4 lines 7-13, col.12 lines 43-45);

Inputting nutrient input requirement maps, where the maps are broken into a grid that represents a field, and each cell of the grid contains nutrient input requirements to apply to each cell (see col.4 lines 51-59, col.8 lines 55-61, Fig.7 shows field broken into grid of cells where each cell contain nutrient requirements);

Creating a blend of agricultural products for each cell of the grid based on the agricultural product information and nutrient input requirement maps (see col.12 lines

61-66, Fig.7 shows field broken to a grid of cells where each cell contain nutrient requirements separately);

Converting the blend of agricultural products for each cell into a geographical-tagged-image-file format (see col.13 lines 26-35); and

Adding unique data tags to the blend of agricultural products for each cell of the grid (col.13 lines 41-42, user creates own equation which is not part of the knowledge database, see Fig.15 block 1506).

Although Hauwiller teaches attribute data may include future crop data (see col.4 lines 12-15) he does not expressly teach percentage of crop inputs contained in the product information.

Wendte teaches georefernced digital map of the field, which includes harvest crop (e.g., yield data or moisture content data), which is taken to be percentage of crop inputs contained in the product information (see col.7 line 64-col.8 line 5).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention to combine the teachings of Wendte and Hauwiller. Wendte's teaching of georefernced digital map of the field, which includes harvest crop (e.g., yield data or moisture content data), which is taken to be percentage of crop inputs contained in the product information would allow users of Hauwiller's method to easily manipulate the data of the crop requirement when creating an application map of site-specific farming application.

As per claim 2, Hauwiller teaches a method of claim 1 and further comprising inputting blending instructions, wherein the blend of agricultural products is further based on the blending instructions (see col.14 lines 55-63, col.12 lines 49-53).

As per claim 3, Hauwiller teaches a method of claim 2 wherein the blending instructions contain a priority for solving each crop input defined in the crop input requirement maps (see col.14 lines 55-63, see col.4 lines 12-15).

As per claim 4, Hauwiller teaches a method of claim 2 wherein the blending instructions contain directions for applying each crop input defined in the crop input requirement maps (see col.1 lines 35-48, col.12 lines 65-col.13 line 5, see col.4 lines 12-15).

As per claim 5, Hauwiller teaches a method of claim 2 wherein the blending instructions contain an application rate for each product (see col.1 lines 35-48, col.12 lines 65-col.13 line 5).

As per claim 6, Hauwiller teaches a method of claim 2 wherein the blending instructions contain a combination of a priority for solving each crop input defined in the crop input requirement maps, directions for applying each crop input, and an application rate for each product (see col.1 lines 35-48, col.12 lines 65-col.13 line 5, see col.4 lines 12-15).

As per claim 7, Hauwiller teaches a method of claim 1 and further comprising inputting economic constraints, wherein the blend of agricultural products is further based on economic constraints (see col.4 lines 10-15).

As per claim 8, Hauwiller teaches a method of claim 1 and further comprising inputting application machine constraints, wherein the blend of agricultural products is further based on the application machine constraints (col.1 line 65-col.2 line 11, col.10 lines 14-31).

As per claim 9, Hauwiller teaches a method of claim 8 wherein the application machine constraints contain metering limitations for agricultural products (col.8 lines 29-35).

As per claim 10, Hauwiller teaches a method of claim 8 wherein the application machine constraints contain metering limitations for product carriers (col.8 lines 29-35).

As per claim 11, Hauwiller teaches a method of claim 1 and further comprising:

Inputting blending instructions (see col.14 lines 55-63, col.12 lines 49-53);

Inputting economic constraints (see col.4 lines 10-15); and

Inputting application machine constraints, wherein the blend of agricultural products is further based on a combination of blending instructions, economic constraints, and application machine constraints (col.1 line 65-col.2 line 11, col.10 lines 14-31).

As per claim 12, Hauwiller teaches a method of claim 1 and further comprising storing the agricultural product information and crop input requirement maps in a data storage system (see col.4 lines 16-22, col.15 lines 4-12, see col.4 lines 12-15).

As per claim 13, Hauwiller teaches a method of claim 1 wherein the unique data tags contain a checksum for verifying the integrity of the data (col.13 lines 41-42, col.14 lines 63-68).

As per claim 14, Hauwiller teaches a method of claim 1 wherein the unique data tags contain information on the expiration of the application maps (col.13 lines 41-42, col.14 lines 63-68).

As per claim 15, Hauwiller teaches a method of claim 1 wherein the unique data tags contain information on the paid-for status of the application maps (see col.7 lines 17-22).

As per claims 16-30, claims 16-30 contain the same limitations of claims 1-15, therefore, they are rejected based on the same rationale, *supra*.

31. A spatial blending module, the module comprising: a main module for converting information input to the spatial blending module into a standard format (see col.13 lines 26-35); and

A spatial blending engine for creating an optimal blend of agricultural products based on pre-defined blending algorithms and the information input into the spatial blending module (see col.12 line 57-col.13 line 26).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Wendte US Patent No. (5,995,894) system for analyzing spatially variable harvest data by pass.
- Hargrove, Jr. et al. US Patent No. (5,897,619) Farm management system.

- Peterson US Patent No. (6,401,041) Automated graphical representation of agricultural information.

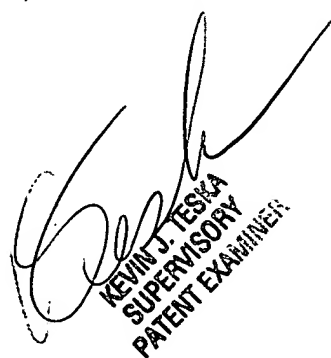
Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mussa A Shaawat whose telephone number is (571) 272-3785. The examiner can normally be reached on Monday-Friday (8:30am to 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jean R Homere can be reached on (571) 272-3780. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mussa Shaawat
Patent Examiner
December 30, 2004


KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER